COUNTY OF SAN DIEGO, DEPARTMENT OF PUBLIC WORKS



PLAN PREPARATION GUIDE

The text and examples of The Plan Preparation Guide have been prepared for use by both engineers and technicians in the preparation of project plans for the County of San Diego, Department of Public Works, Engineering Services Section.

WORK IN PROGRESS

1)	GENERAL	1
A)	CADD DRAWINGS	1
В		1
C		
D	STANDARD PLANS & STANDARD DRAWINGS	1
2)	EXAMPLES OF PROJECT PLANS, INSTRUCTIONS, AND CHECKLISTS	2
A)		3
	i) TYPICAL BASE SHEET DETAIL	4
B)		5
	i) TYPICAL TITLE SHEET (WITH INSTRUCTIONS)	
	ii) TYPICAL TITLE SHEET	
C		8
_	i) TYPICAL NOTES, LEGENDS AND PLAN OVERVIEW SHEET	
D		
_	i) TYPICAL CROSS SECTION SHEET	
E)		
	i) TYPICAL PLAN AND PROFILE (WITH INSTRUCTIONS)ii) TYPICAL PLAN AND PROFILE SHEET	
	ii) TYPICAL PLAN AND PROFILE SHEET iii) TYPICAL PLAN AND PROFILE SHEET	
F)	, and the second	
' /	i) TYPICAL DRIVEWAY AND CURB RETURN PROFILE SHEET	
G	,	
	i) TYPICAL STORM DRAIN PLAN AND PROFILE SHEET	
H	,	
	i) TYPICAL RETAINING WALL PLAN AND PROFILE SHEET	
I)	TRAFFIC SIGNAL	22
·	i) TYPICAL TRAFFIC SIGNAL SHEET	23
	ii) TYPICAL SIGNING AND STRIPING SHEET	
	iii) TYPICAL SIGNING AND STRIPING SHEET	
J)		26
	i) TYPICAL STAGE CONSTRUCTION PLAN SHEET	
	ii) TYPICAL TRAFFIC CONTROL PLAN SHEET	
K)		
	i) TYPICAL WATER POLUTION CONTROL DETAIL SHEET	
	ii) TYPICAL WATER POLUTION CONTROL DETAIL SHEET	
	iii) TYPICAL WATER POLUTION CONTROL DETAIL SHEETiv) TYPICAL WATER POLUTION CONTROL PLAN SHEET	
	iv) TYPICAL WATER POLUTION CONTROL PLAN SHEET	აა

1) GENERAL

A) CADD DRAWINGS

All plans prepared for the County of San Diego Department of Public Works shall be designed and submitted in AutoDesk Land Desktop 3 format. DPW CADD standards shall be maintained for all submittals. Information may be obtained at:

http://www.sdcounty.ca.gov/dpw/permits-forms/engstd.htm.

B) DRAWING MATERIALS

Project plans shall be plotted on matte finish drafting film using black ink. The sheet size shall be 36" x 24".

C) BORDER

The County of San Diego Department of Public Works **Title Block** shall be named **tbbase.dwg** in the project directory and used as the border for all plan sheets. The associated AutoCAD drawing file, **Tbbasei.dwg**, shall be used to identify the individual sheets of the project set. **TitleBlock-DPW.dwt** and **tbbasei.dwg** are available at:

http://www.sdcounty.ca.gov/dpw/permits-forms/engstd.htm.

D) STANDARD PLANS & STANDARD DRAWINGS

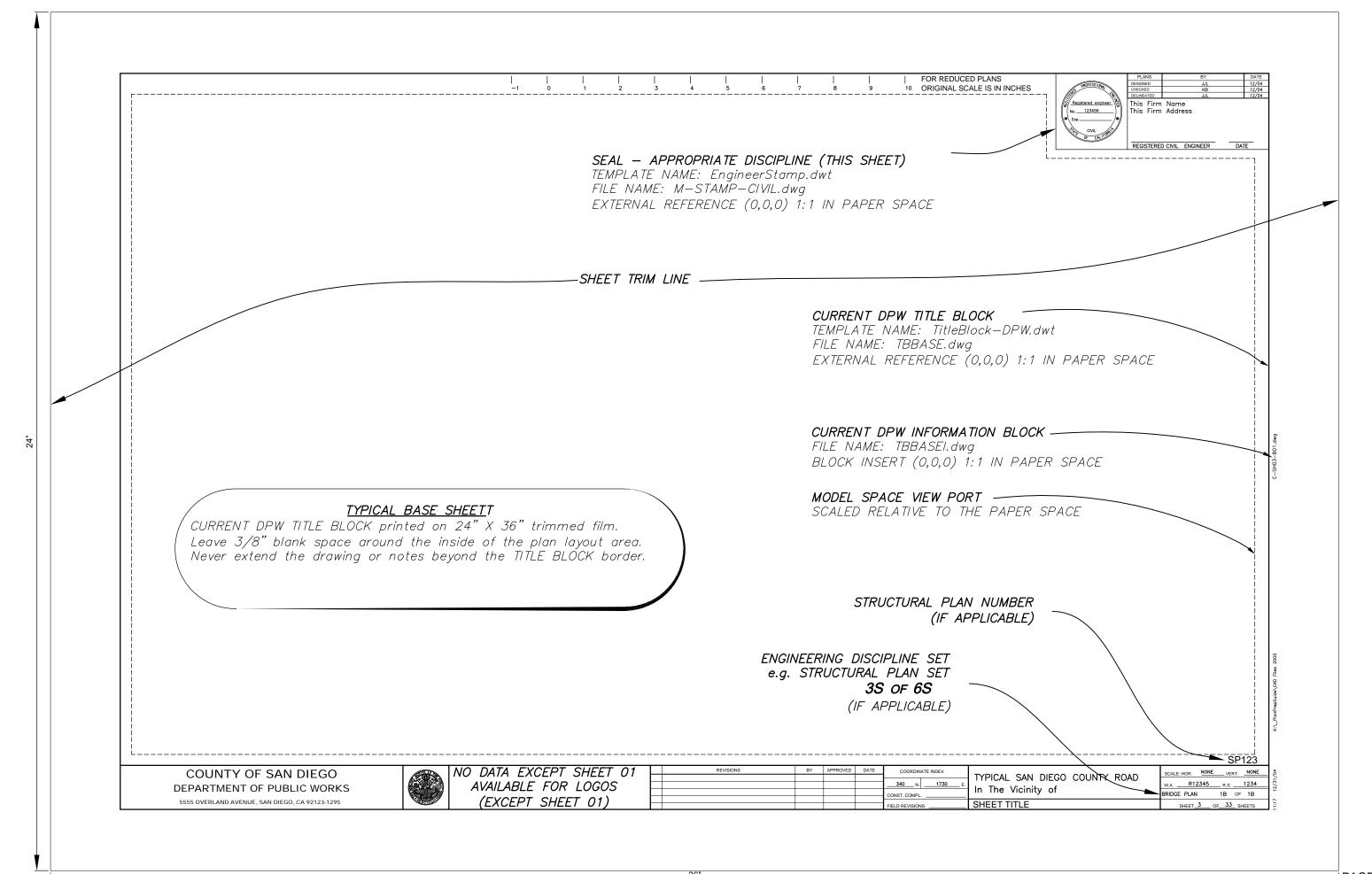
Standard Plans and Standard Drawings shall not be altered and must be submitted as a part of the project plans. Where the details shown on the Standard Plans or Standard Drawings do not fit a particular situation, details for the particular situation shall be shown on the applicable sheet of the project plan (i.e. construction details, drainage details, etc.).

2) EXAMPLES OF PROJECT PLANS, INSTRUCTIONS, AND CHECKLISTS

GENERAL INFORMATION

The example sheets contained herein were obtained from several different sources. They may not necessarily reflect desirable designs or current design standards. The examples are presented in the reduced (50% reduction) format size. Explanatory notes on the preparation of plan sheets are included and in most instances are outlined.

Lines and lettering (refer to DPW CADD Standards) shall be of adequate size and weight to produce legible reproductions in the 50% reduction format.



PAGE 3

TBBASE ATTRIBUTE VALUES: TYPICAL BASE SHEET DETAIL Scales: Provide the Horizontal and Vertical scale. If viewports with different scales are used, indicate the scale for each viewport on the plan. W.A.: Work Authorization Number R.S.: Road Survey Number tbbasei ATTRIBUTE VALUES: Reserved for specific discipline sheets. TBBASE ATTRIBUTE VALUES: Indicate California coordinates (lower left corner of County 200 scale topographic map on which the project starts, NAD27). Construction completion date and field revision date to be added upon completion of the project. BY APPROVED DATE SCALE: HOR. NONE VERT. NONE COORDINATE INDEX **COUNTY OF SAN DIEGO** VERT. NONE V.A. R12345 R.S. 1234 BRIDGE TYPICAL SAN DIEGO COUNTY ROAD 340 N. 1730 DEPARTMENT OF PUBLIC WORKS In The Vicinity of 5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295 SHEET TITLE SHEET 4 OF 33 SHEETS

Indicate design revisions made to plans subsequent to signing by the Engineer and prior to advertising contract.

TBBASE ATTRIBUTES:

Project Name and the vicinity location (fit each on one line of text) . The attribute values on these lines will be identical on every sheet of the project plan set.

TBBASEI ATTRIBUTE VALUES:
Unique on each sheet

B) TITLE SHEET

INSTRUCTION

The Title Sheet of the plan set will include: the County of San Diego DPW Cover Sheet, the DPW Title Block, and Title Block Information Block. The information on the title sheet shall be limited to that information in the "Plan Preparation Guidelines". Features such as typical sections, construction details, drainage details, standard abbreviations, legends and construction notes shall not be shown on the Title Sheet.

TYPICAL SHEET INDEX

The Index of Sheets shall list all sheets contained in the project plans. The sheet name shown on the Index of Sheets shall match the name shown on the individual sheet. A typical set of project plans may include the following:

ROAD PROJECTS

INDEX OF SHEETS

TITLE SHEET
NOTES, LEGEND & PLAN OVERVIEW
TYPICAL SECTIONS (ROAD PROJECTS)
PLAN AND PROFILE SHEETS
TRAFFIC SIGNAL
CONSTRUCTION DETAILS
DRAINAGE PLAN, PROFILES AND DETAILS
DETOUR PLAN
STAGE CONSTRUCTION
TRAFFIC CONTROL PLAN
RETAINING WALL PLANS AND DETAILS
WATER POLLUTION CONTROL PLAN

BRIDGE PROJECTS

INDEX OF SHEETS

CIVIL PLANS
TITLE SHEET
NOTES AND LEGENDS
PROJECT IMPACT AREA (PIA) MAP
TRAFFIC CONTROL PLAN
CONSTRUCTION STAGING PLAN
DETOUR ROAD PLAN & PROFILE
APPROACH ROAD PLAN & PROFILE
CHANNEL GRADING PLAN
SIGNING & STRIPING PLAN

BRIDGE PLANS
BRIDGE REMOVAL PLAN
GENERAL PLAN
DECK CONTOURS
FOUNDATION PLAN
ABUTMENTS
WINGWALLS
BENTS
TYPICAL SECTION
GIRDER LAYOUT
GIRDER REINFORCEMENT
LOG OF TEST BORINGS

UTILITY PLAN
EXISTING UTILITY
PROPOSED UTILITY

CHECKLIST

Vicinity Map (project site)
California Coordinates, NAD 27 (show coordinates of lower left corner of the standard 200
Scale County topographic sheet on which the project begins)
Index of Sheets
Project Location (show on county map in upper right corner of sheet)
Length of Project
Work Authorization Number (indicate on Tbbase)
Scales (or labeled no scale).
Road Survey Number - N/A if not applicable (indicate on Tbbase)
Interim Improvements
Community Name
General Notes
Routing Review Block (except for Final Submittals)
County Signature Block

INDEX OF SHEETS

- No. Description
- 1 TITLE SHEET
- 2 TYPICAL SECTIONS
- 3-5 PLAN AND PROFILE
- 6 PROFILE DRIVEWAY
- 7 PROFILE DRIVEWAY & CURB RETURN
- 8-9 PLAN AND PROFILE STORM DRAIN
- 10-11 DETAILS
- 12 STRIPING AND SIGNING PLAN
- 13 WATER POLLUTION CONTROL PLAN

COUNTY OF SAN DIEGO, CALIFORNIA DEPARTMENT OF PUBLIC WORKS

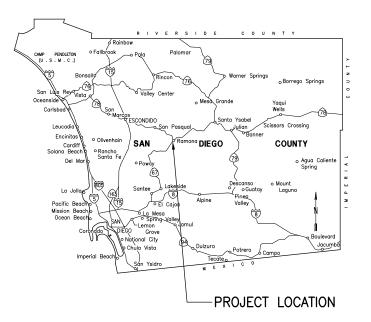
PLANS FOR CONSTRUCTION OF

16TH STREET ROAD IMPROVEMENTS

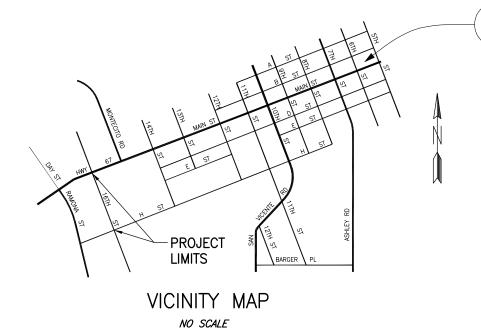
RS 2380

In The Vicinity of Ramona

LENGTH = 0.3 Miles



VICINITY MAP TO SHOW "PROJECT SITE" OR
"PROJECT LIMITS". MAP LIMITS ARE TO EXTEND
TO NEAREST MAJOR ROAD.



GENERAL NOTES:

ATTENTION IS DIRECTED TO THE POSSIBLE EXISTENCE OF UNDERGROUND UTILITY FACILITIES NOT KNOWN OR IN A LOCATION DIFFERENT FROM THAT WHICH IS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO PERFORMING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE. FORTY—EIGHT HOURS BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND FACILITIES BY CONTACTING UNDERGROUND SERVICE ALERT AT TELEPHONE 1—800—422—4133.

"GENERAL NOTES" TO REMAIN AS SHOWN
DO NOT EDIT.

OPERATORS OF GRAVITY SEWER SYSTEMS AND CERTAIN OTHER UTILITIES, WHO ARE NOT MEMBERS OF UNDERGROUND SERVICE ALERT, MUST BE INDIVIDUALLY CONTACTED.

COUNTY SIGNATURE BLOCK - SHEET 1 ONLY.
CHECK FOR CORRECT APPROVAL NAME.

COMMENDED BY:

DOIGLAS M. ISBELL COUNTY ENGINER.

DOLIGIAS M. ISBELL COUNTY ENGINER.

DOLIGIAS M. ISBELL COUNTY ENGINER.

ROUTING SUBMITTAL BLOCK
SHEET 1 ONLY.

| AM Compliance | Continuation Engineering | Environmental Survice | Continuation Engineering | Environmental Survice | Continuation Engineering | Environmental Survice | Continuation | Contin

PAGE 6

INDEX OF SHEETS

No. Description

1 TITLE SHEET

2 TYPICAL SECTIONS

6 PROFILE - DRIVEWAY

PLAN AND PROFILE

7 PROFILE - DRIVEWAY & CURB RETURN

8-9 PLAN AND PROFILE - STORM DRAIN

10-11 DETAILS

12 STRIPING AND SIGNING PLAN

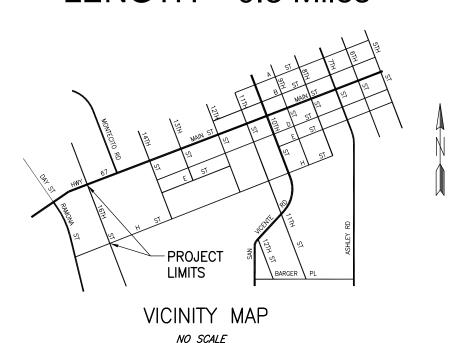
3 WATER POLLUTION CONTROL PLAN

COUNTY OF SAN DIEGO, CALIFORNIA DEPARTMENT OF PUBLIC WORKS

PLANS FOR CONSTRUCTION OF

16TH STREET ROAD IMPROVEMENTS RS 2380

In The Vicinity of Ramona LENGTH = 0.3 Miles



FOR REDUCED PLANS

GENERAL NOTES:

ATTENTION IS DIRECTED TO THE POSSIBLE EXISTENCE OF UNDERGROUND UTILITY FACILITIES NOT KNOWN OR IN A LOCATION DIFFERENT FROM THAT WHICH IS SHOWN ON THE PLANS OR IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL TAKE STEPS TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO PERFORMING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE. FORTY—EIGHT HOURS BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND FACILITIES BY CONTACTING UNDERGROUND SERVICE ALERT AT TELEPHONE 1—800—422—4133.

OPERATORS OF GRAVITY SEWER SYSTEMS AND CERTAIN OTHER UTILITIES, WHO ARE NOT MEMBERS OF UNDERGROUND SERVICE ALERT, MUST BE INDIVIDUALLY CONTACTED.

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

DATE	REVISIONS	BY	APPROVED	DATE	COORDINATE INDEX		SCALE: HOR. NONE VERT. NONE
DAIL						TYPICAL SAN DIEGO COUNTY ROAD	OUNCE: HOLE
DATE					340 N1730 E.		w.a. R12345 R.S. 1234
OVED BY:					CONST. COMPL.	In The Vicinity of	
DATE						TITLE QUEET	
DOUGLAS M. ISBELL, COUNTY ENGINEER					FIELD REVISIONS	TITLE SHEET	SHEET 1 OF 33 SHEETS

C) NOTES, LEGEND AND PLAN OVERVIEW

INSTRUCTIONS

Include the following:

- Regional Standard Drawings List
- Caltrans Standard Plans List
- Provide all notes and legends
- Horizontal and Vertical Control data
- Road projects include plan overview of the project

CONSTRUCTION

FOR

NOT

SUBMITTAL

100%

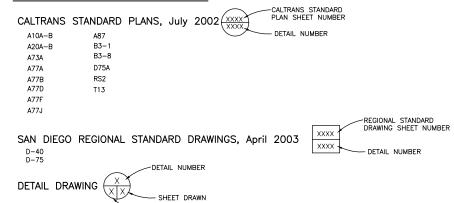
PROJECT STANDARD SPECIFICATIONS

STATE OF CALIFORNIA STANDARD SPECIFICATIONS FOR CONSTRUCTION OF LOCAL STREETS AND ROADS, July 2002

-SHEET TAKEN

5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295

PROJECT STANDARD PLANS



SURVEY NOTES

HORIZONTAL CONTROL

ALL BEARINGS, DISTANCES, STATIONS AND COORDINATES ARE GRID AND BASED ON AND BASED ON THE NORTH AMERICAN DATUM OF 1983 (1991.35) CALIFORNIA COORDINATE SYSTEM, ZONE 6. CONTROL IS BASED ON B ORDER CONTROL POINT 'FAR', 1ST ORDER CONTROL POINT 'FIT-2', AND 1ST ORDER CONTROL POINT 'RCAJCCS1'.

AT STATION 'JULA XP7':

 λ = -0-21-56.87 AND THE COMBINATION FACTOR = 0.99997318

GROUND DISTANCE =

GRID DISTANCE

COMBINATION FACTOR

BENCH MARK

LOCATION:

DESIGNATION: EC142

DESCRIPTION: STANDARD BRASS DISC SET IN CONCRETE MONUMENT STAMPED EC 142

AT INTERSECTION OF PETITIE LN AND JULIAN AVE. 36' E OF CL OF PETITIE LN AND 33' N OF CL OF JULIAN AVE, 3' FROM CURVE

CORNER OF BLOCK WALL.

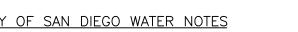
ELEVATION: 404.610

VERTICAL DATUM IS NGVD 1929.

CITY OF SAN DIEGO WATER NOTES

- 1 THE PIPELINE MAY REMAIN IN OPERATION (LIVE) DURING THE ENTIRE CONSTRUCTION PROCESS. CONTACT CITY OF SAN DIEGO WATER OPERATIONS DIVISION AT: (619) 527-3955 THREE (3) WORKING DAYS PRIOR TO START OF ANY EXCAVATION OPERATION.
- THE CONSTRUCTION CREW SHALL FOLLOW THE CONSTRUCTION PROCEDURES AND SPECIFICATIONS NOTED HEREON TO PREVENT DEFLECTION OR ROTATION OF PIPE JOINTS, AND TO PREVENT DAMAGE TO THE PIPELINE DURING THE CONSTRUCTION PROCESS.
- 3 NOTIFY THE ENGINEER IMMEDIATELY IF ANY CHANGES TO THE CONSTRUCTION PROCEDURES ARE REQUIRED, OR IF ANY INCONSISTENCIES ARE FOUND BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS.
- 4 REFERENCE CITY OF SAN DIEGO DWG. NO. 3710-W SHEETS 8 AND 9 OF
- 5 VERIFY THE LOCATIONS BY POT HOLING IF NECESSARY ALL UTILITIES PRIOR TO COMMENCING WORK. CONTACT UNDERGROUND SERVICE ALERT (800) 422-4133 FOR FIELD LOCATION OF UTILITIES AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING, NOTIFY CITY OF SAN DIEGO —
 WATER OPERATIONS DIVISION AT 668–2073 THREE (3) WORKING DAYS PRIOR TO CONSTRUCTION OR FOR A PRECONSTRUCTION MEETING.
- 6 TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS THAT ARE TO REMAIN IN PLACE FROM DAMAGE.
- 7 THE CITY IS TO PROVIDE QUALIFIED ENGINEERING INSPECTOR AT SITE ON A FULL TIME BASIS FOR DURATION OF THE CONSTRUCTION AT THE CITY OF SAN DIEGO WATER PIPELINE CROSSING.

ONST. COMPL



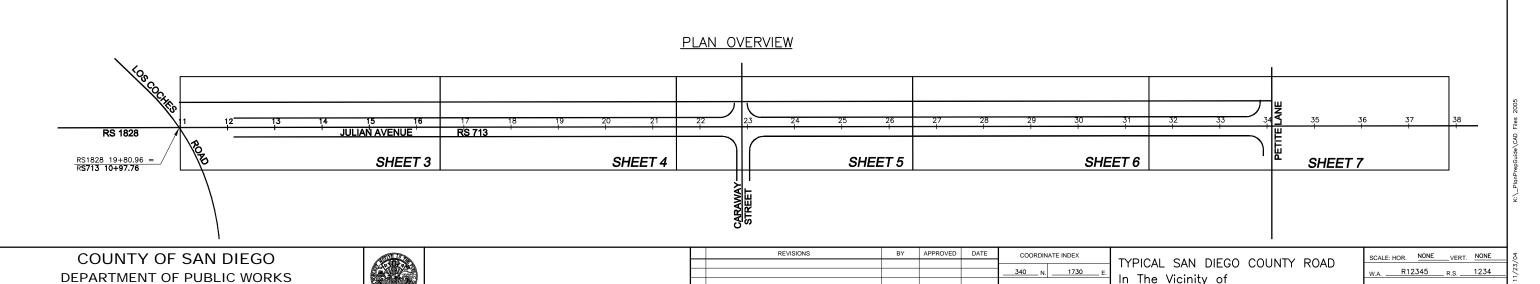
FOR REDUCED PLANS 10 ORIGINAL SCALE IS IN INCHES



NOTES, LEGEND & PLAN OVERVIEW

This Firm Name

REGISTERED CIVIL ENGINEER



SHEET 2 OF 33 SHEETS

D) CROSS SECTION

CHECKLIST

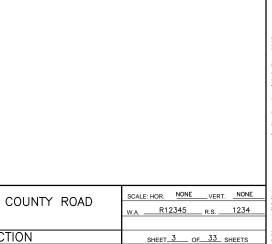
_	Scales (or labeled no scale).
_	Layout Line (road survey, centerline, etc.)
_	Cross Slope (percent)
_	Type, Class and Thickness of Pavement, Base and Subbase (in feet, do not use inches)
	Seal Coats
_	AC Dikes With Type Identification
	Curb and Gutter (include dimensions not shown on standard plans)
_	Basic Right of Way Widths, Stationing Limits Below Each Section, Smallest Station at To
	of Sheet
_	Pertinent Existing Features
_	Profile Grade Point, Widths of Pavement, Shoulders, Medians, Sidewalk, Ditches, Etc., in
	Feet (do not use inches) - indicate limits of variable dimensions
	Saw Cut Line
	Cut/Fill Slopes (catch point_slope ratio)

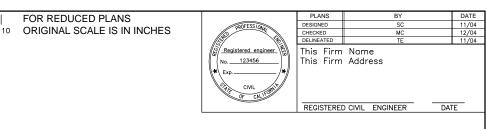


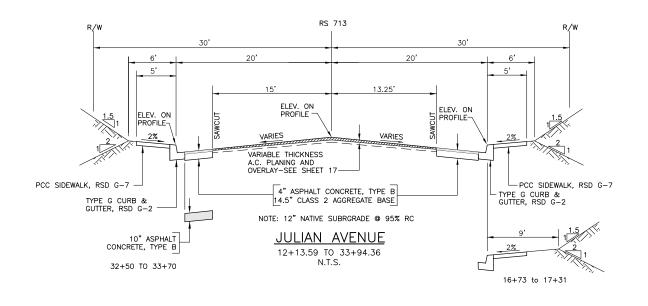


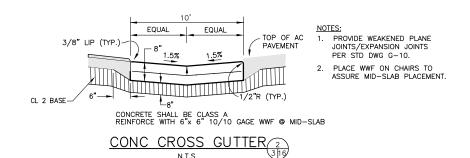




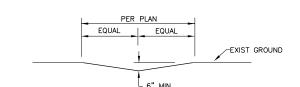




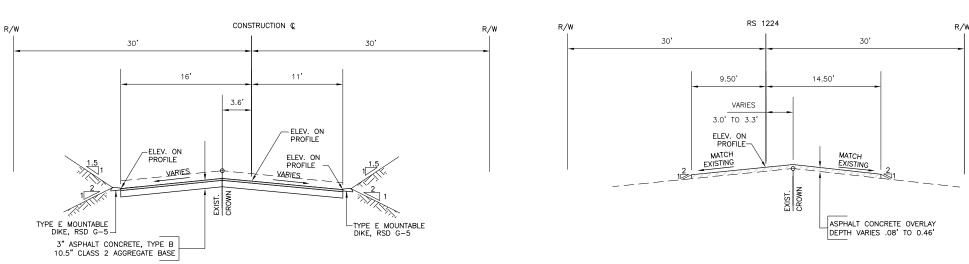




FOR REDUCED PLANS







CARAWAY STREET NORTH

24+13.78 TO 24+63.84 N.T.S.

COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS 5555 OVERLAND AVENUE, SAN DIEGO, CA 92123-1295



CARAWAY STREET SOUTH 0+28.50 TO 1+13.50

REVISIONS	BY	APPROVED	DATE	COORDINATE INDEX		l
				l		TYPIC
				340N1730	E.	I TI
				CONST. COMPL.		in ir
				CONST. COMPL.		TV (5) (6)
				FIELD REVISIONS		LIYPIC

E) PLAN AND PROFILE

PLAN INSTRUCTIONS

Only those existing topographic features which affect construction, and which are essential for field orientation of the plans shall be shown (as an external reference). In urban areas, contour lines generally need not be shown.

Show all centerline data: Stationing equations; Tangent distances and bearings; and curve stations, radius, length, delta.

Show proposed: edge of pavement (or lip of gutter and top of curb); edge of shoulders (or back of walk); all drainage structures; survey monuments to be set; fences, guard railing, barriers, and all other facilities to be constructed. Solid lines shall be used for proposed construction items (refer to "DPW CADD Standards").

Indicate the work to be performed:

Existing facilities:

• Use phrases similar to "Abandon" or "Remove", "Join/Match Exist", "Protect In Place", "Reset", "Relocate", "Reconstruct".

New construction:

- Do not use "Construct", "Place", etc., these terms are superfluous.
- Include all necessary dimensions, station and offset.
- Toe of fill and top of cuts (except where grading is minimal).

PLAN CHECKLIST

Scales (or labeled no scale).
Layout Line (road survey, centerline, etc.)
Standard North Arrow
Underground Utilities (sewer, water, gas, and telephone)
Utility Poles
Match Lines
Bearings
Bench Mark
Right of Way Widths
Roadway Widths
Standard Legend (show on each plan sheet)
Driveways (station, width, surfacing)
Survey Monuments
Pedestrian Ramps
Existing Features (shaded lines, dashed lines)

PROFILE INSTRUCTIONS

On combined Plan and Profile sheets, the profile stationing shall line up with the stationing in the plan portion.

Extend the original ground line a few stations beyond the beginning and end of the project.

Elevations and stations are to be shown at BVCs, EVCs, PRVCs, PCVCs, equations, paving notches, broken profiles for datum changes, and each edge of the sheet on profile grade.

Vertical curve lengths and tangent gradients are to be shown. Gradients must be shown at points of reverse or compound vertical curvature.

PROFILE CHECKLIST

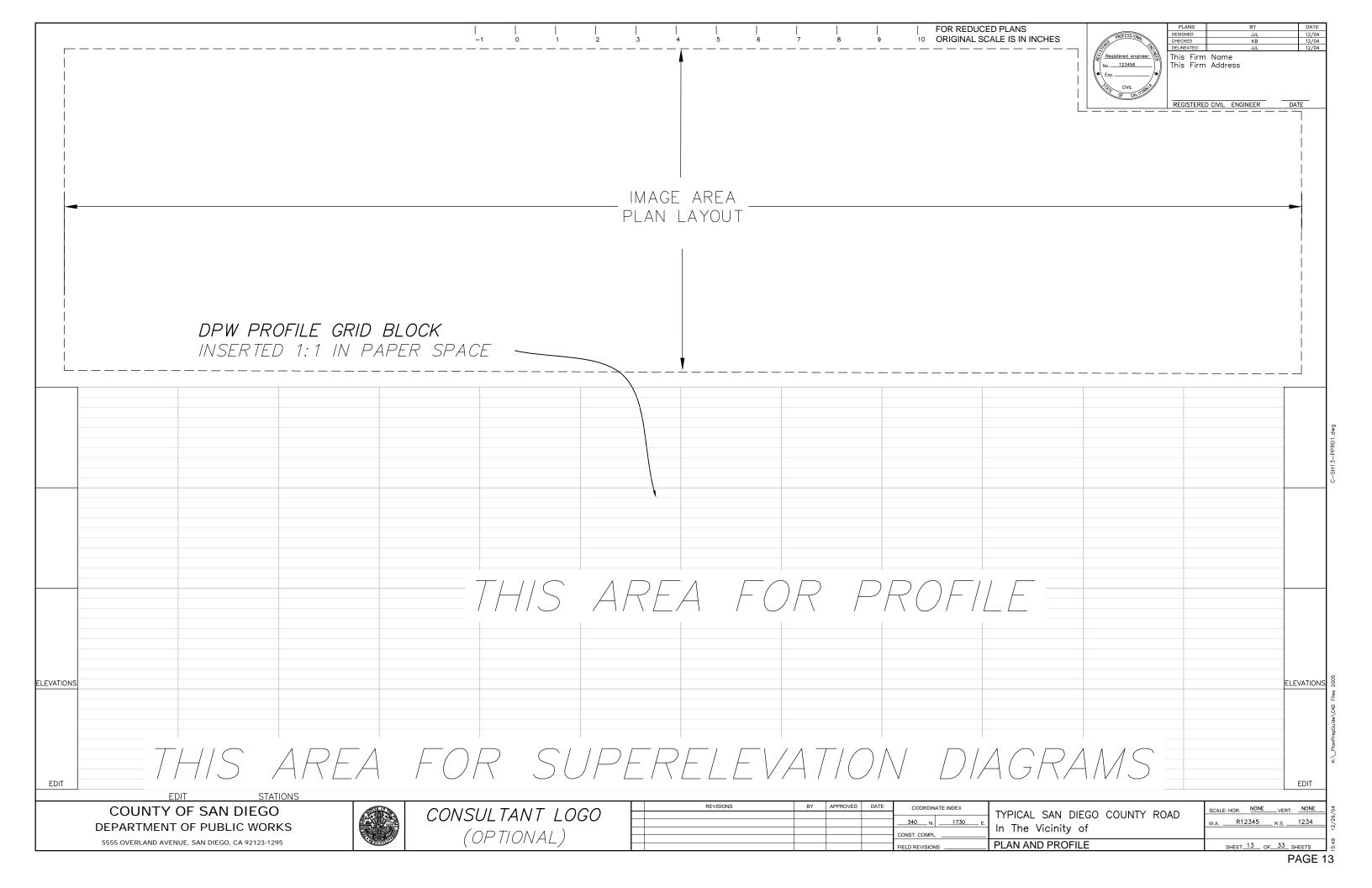
Elevations Labeled at Both Edges of Sheet
Profile Lines With Label and Grade in Percent
Superelevation Diagram (show directly below the corresponding profile where sufficient
space is available)
Original Ground Lines With Label
Vertical Curve Lengths
Elevations and Stations (shown at BVC, EVC, PRVC, and PCVC)
Utility Crossings
Equations

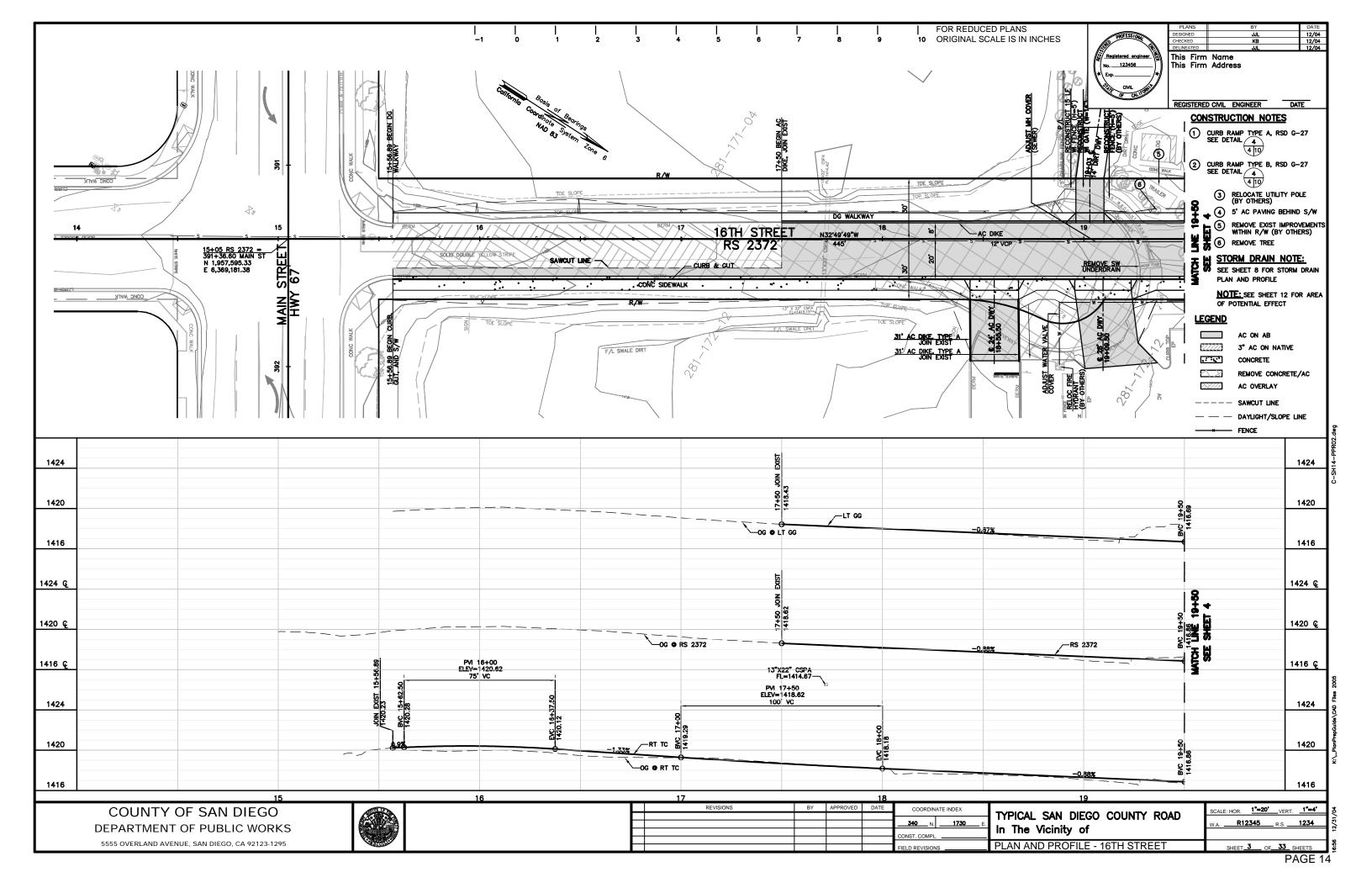
SUPERELEVATION DIAGRAM INSTRUCTIONS

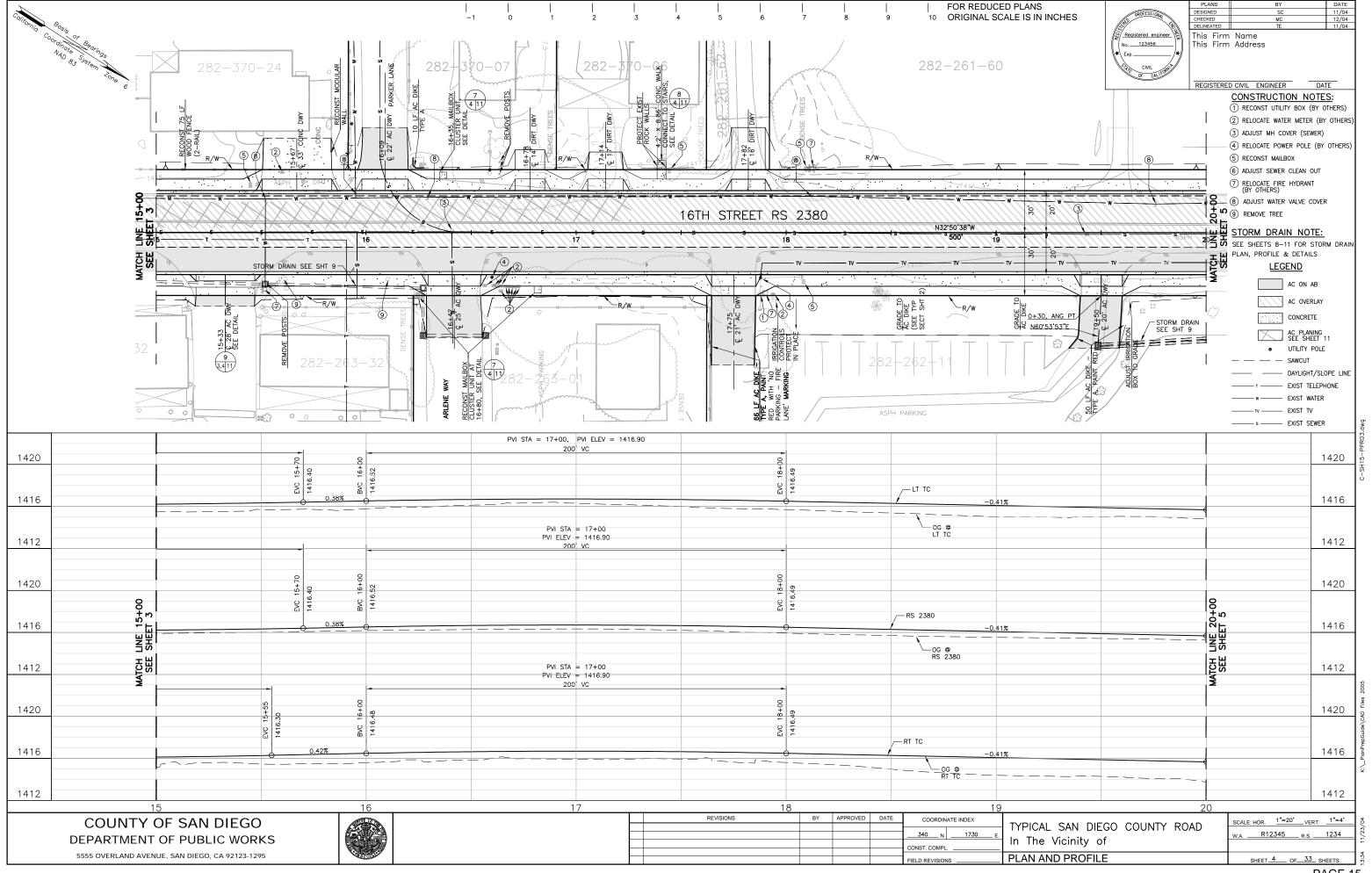
The following should be included:

- Stationing.
- Superelevation in percent.
- Axis of rotation (0% line).
- Curve points Vertical lines should indicate the location of all horizontal curves BCs and ECs.

Certain combinations of profile grade line, vertical curves, superelevation transitions, and variable pavement widths may produce undesirable pavement edge profiles. Where these combinations occur, it is essential to plot edge of pavement profiles and graphically adjust bumps and drainage pockets. These should be drawn to an exaggerated vertical scale and plotted separate from the project plans, and submitted to the Resident Engineer and Field Surveys for use in staking.



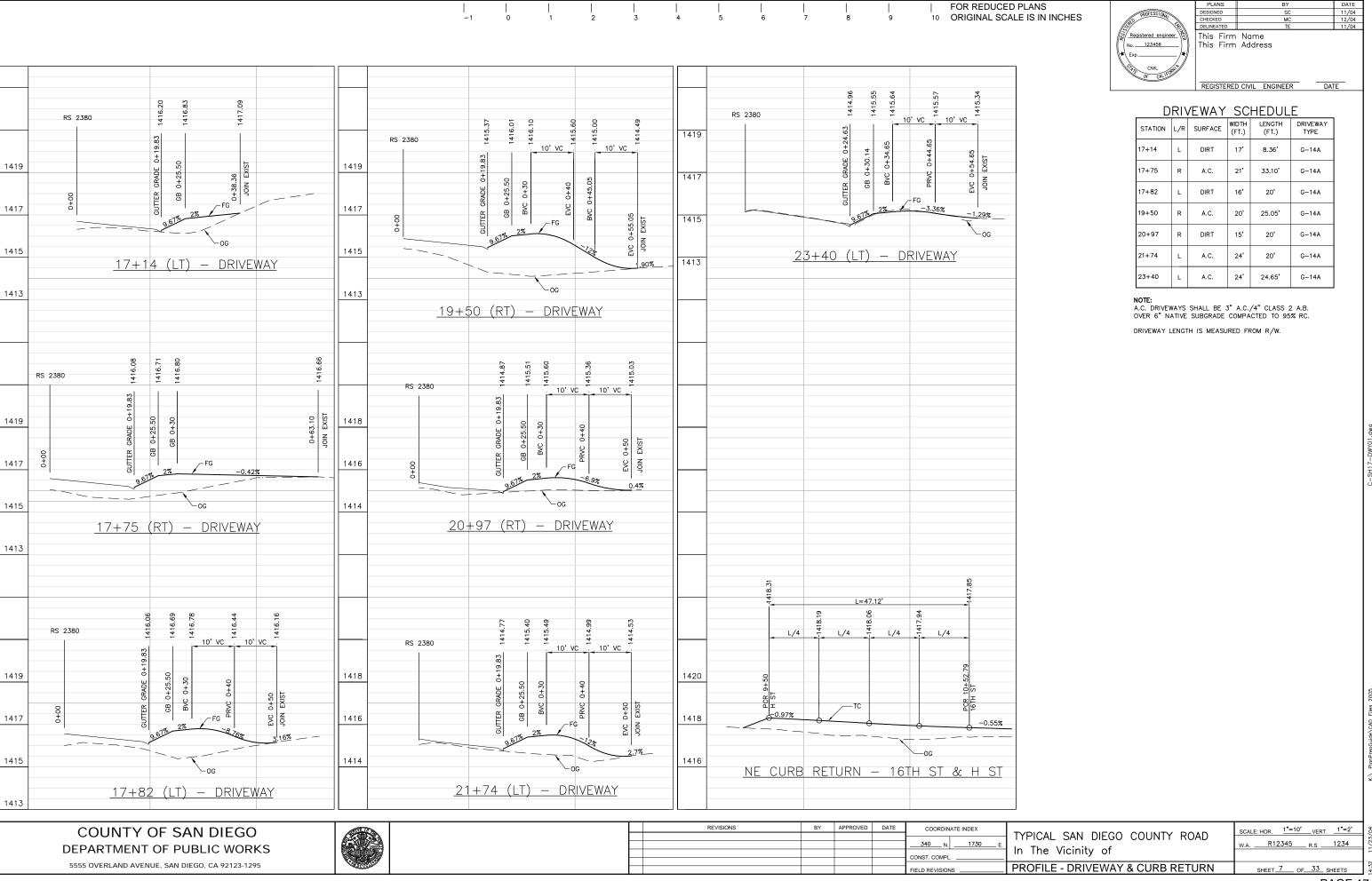




F) DRIV	EWAY	AND	CURB	RETU	JRN I	PROFI	ILES
---------	-------------	-----	-------------	------	-------	-------	------

CHECKLIST

- Scales (horizontal, vertical)
 Original Ground
 Slope (percent)
 Type, Class and Thickness of Pavement and Base
 Stationing Below Each Section, Smallest Station at Top of Sheet



G) STORM DRAIN PLAN AND PROFILE

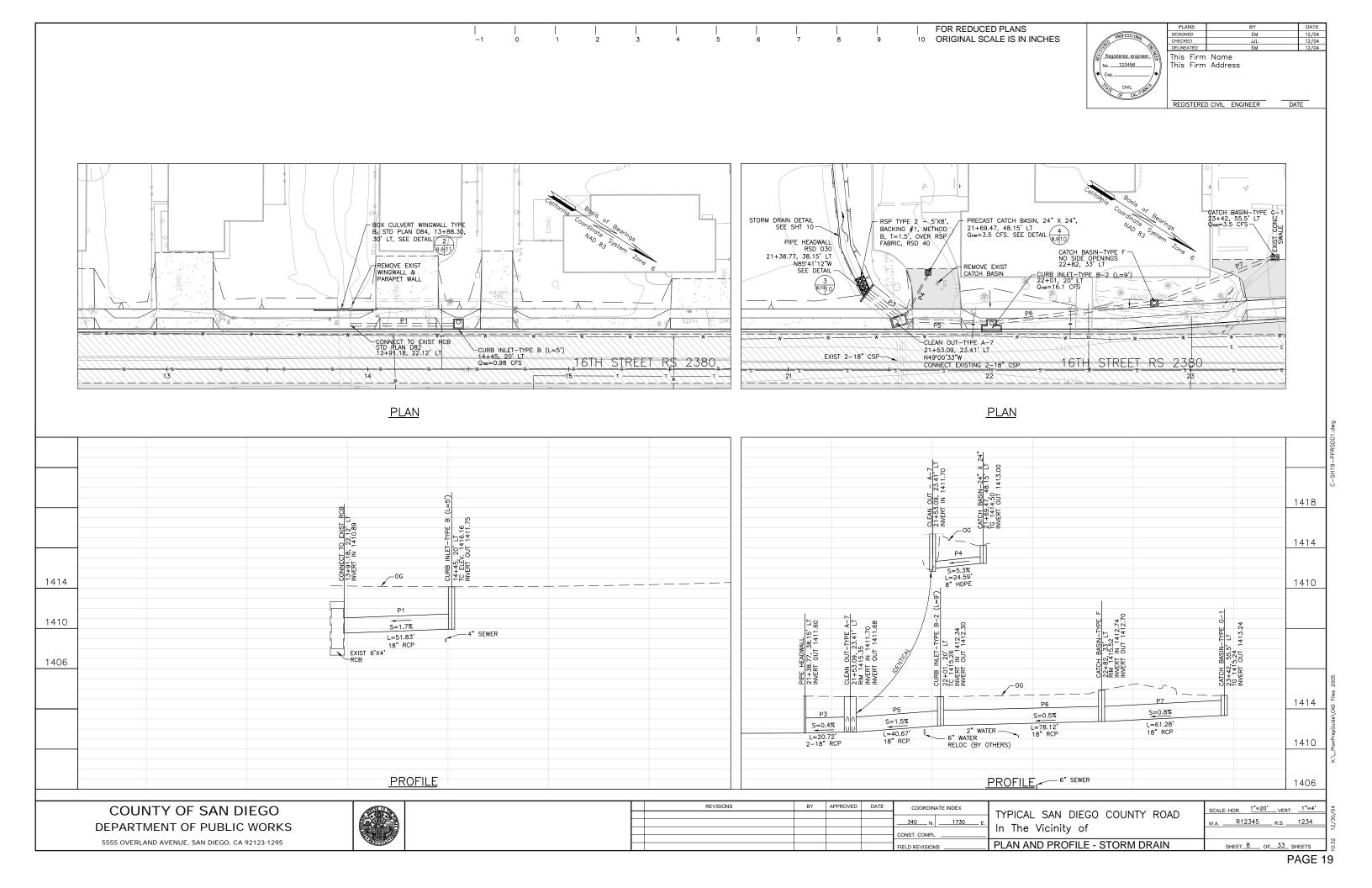
PLAN INSTRUCTIONS

Separate Storm Drain Plan Sheets (if required) are prepared on duplicate skeletons of the base plan sheets.

PROFILE INSTRUCTIONS

Where storm drain facilities are to be installed or constructed, strom drain profiles shall be prepared for inclusion in the plans. A profile of each proposed storm drain system shall be plotted on the Storm Drain Profile Sheets. Each Storm Drain Profile Sheet shall contain the following data for each storm drain system:

- Type, size, length and location of culverts
- Culvert appurtenances (including but not limited to, headwalls, wingwalls, drainage inlets, flared end sections, inlet and outlet structures) shall be shown and labeled
- Original ground and finished grade profile
- All flow line elevations
- All underground utilities crossings
- Slope of the culvert shown in percent



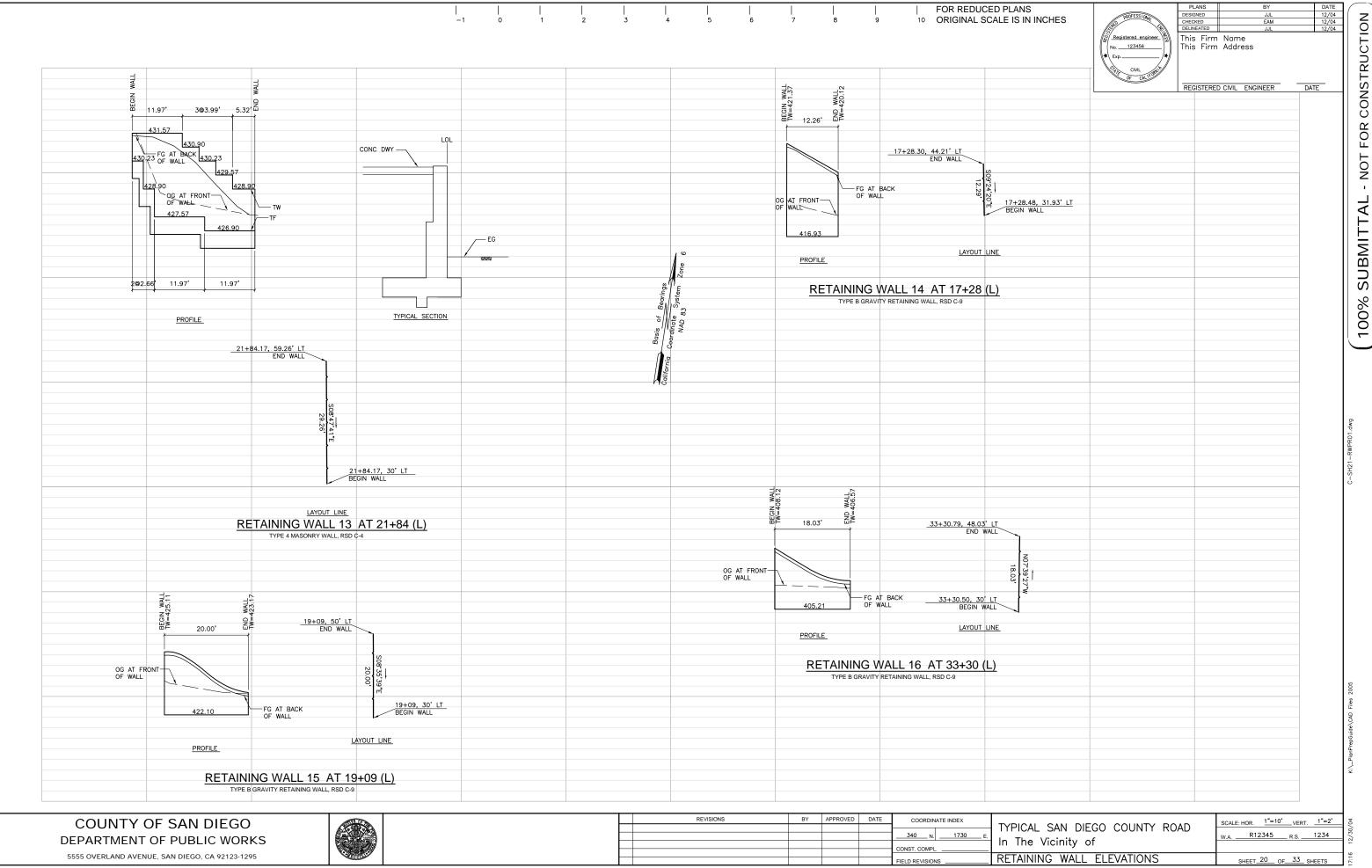
H) RETAINING WALL PLAN AND PROFILE

INSTRUCTIONS

Standard Plans and Standard Drawings are available for a variety of retaining walls. Loading and foundation requirements are outlined on the Standard Plans and Standard Drawings. For sites with requirements that are not covered by the Standard Plans or Standard Drawings, a special design is required.

A foundation investigation should be made for all locations at which a retaining wall is being considered. The Department of Public Works Materials Testing Lab typically makes foundation investigations.

The retaining wall plans should include a plan view, an elevation view and typical section. The elevation view should show (and be identified as such): top of wall elevation, top of footing elevation, finished grade, and original ground line at the wall layout line. The original ground line is also to be shown on the typical section.



TRAFFIC SIGNAL

CHECK LIST

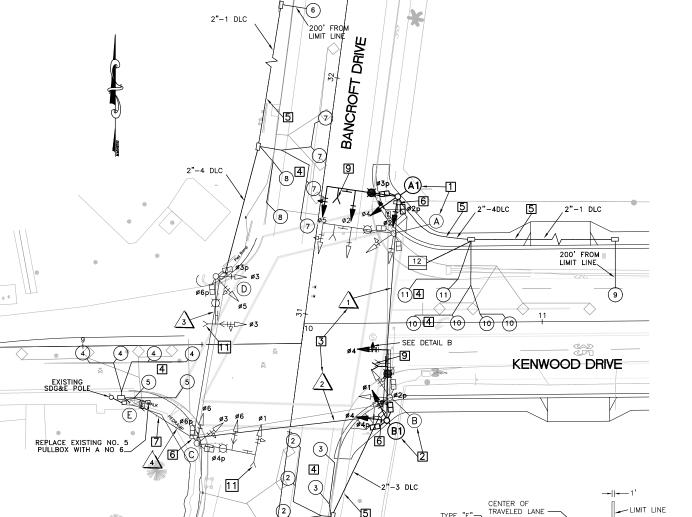
- Scale (or labeled no scale)
 Layout Line (road survey, centerline, etc.)
 Pole and Equipment Schedule
 Detector Assignment Schedule
 Phase Diagram
 Typical Loop Spacing
 Pedestrian Ramps
 Conductor Schedule
 Typical Pole Location

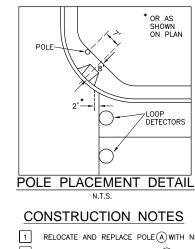
- Typical Pole Location
 Legends (Stop Bar, Arrows, etc.)
 Striping, Lane Widths
 Standard North Arrow

- TR Number

GENERAL NOTES

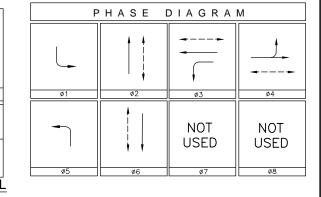
- 1. THE LOCATION OF ALL UNDERGROUND UTILITIES IS APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE DEPTH OF ALL UTILITIES, INCLUDING THOSE NOT SHOWN ON THE PLAN, AND VERIFY ALL CONDITIONS ON THE JOB.
- 2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND NOTIFY ALL UTILITIES AND AGENCIES AT LEAST 48 HOURS IN ADVANCE.
- 3. ALL LOOPS SHALL BE CENTERED IN TRAVEL LANE UNLESS OTHERWISE NOTED.
- 4. ALL PULL BOXES ARE NUMBER 5, AND CONDUIT IS 2-INCH UNLESS OTHERWISE
- 5. ALL SIGNAL HEADS SHALL BE TWELVE-INCH IN DIAMETER WITH BACK PLATES. ALL RED, YELLOW, AND GREEN INDICATIONS SHALL BE L.E.D.
- 6. PEDESTRIAN HEADS AND PUSHBUTTON SIGNS SHALL BE INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS SHALL BE L.E.D., SIDE BY SIDE.
- 7 CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR TRAFFIC SIGNAL INSTALLATION PER CALTRANS TRAFFIC MANUAL TO THE COUNTY OF SAN DIEGO TRAFFIC ENGINEERING SECTION A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO CONSTRUCTION. FOR INFORMATION CALL (858) 874-4025.
- 8. ALL TRAFFIC SIGNAL POLE FOUNDATIONS SHALL HAVE A 3-INCH CONDUIT INSTALLED TO THE ADJACENT PULL BOX.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR THE LAYOUT AND INSTALLATION OF LOOP DETECTORS, TRAFFIC STRIPING, PAVEMENT MARKINGS, PARKING REMOVAL, AND TRAFFIC SIGNING, AS SHOWN ON THE PLAN:
- a) THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE COUNTY TRAFFIC ENGINEERING SECTION FOR THE LOOP LOCATIONS, STRIPING, PAVEMENT
 MARKINGS, PARKING REMOVAL, AND SIGN LOCATIONS PRIOR TO PAINTING AND INSTALLATION. CONTRACTOR SHALL USE LEAD-FREE PAINT FOR ALL STRIPING AND PAVEMENT MARKINGS.
- b) THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL CONFLICTING STRIPING AND PAVEMENT MARKINGS AND SANDBLASTING/GRINDING AND SAND
- 10.CONTRACTOR SHALL NOT ERECT ANY SIGNAL STANDARDS MORE THAN THREE WEEKS PRIOR TO SCHEDULED TRAFFIC SIGNAL TURN ON.
- 11.FLASHING SIGNAL OPERATION SHALL BE RED ON ALL PHASES. PEDESTRIAN SIGNALS SHALL BE BLANK DURING FLASHING OPERATION.
- 12.ALL TRAFFIC SIGNAL IMPROVEMENTS SHALL BE INSTALLED IN COORDINATION WITH THE SIGNING AND STRIPING CONTRACTOR.
- 13.CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND/OR BENCHMARKS WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED BY APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED BY THE LICENSED SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE LAND SURVEYOR'S ACT.
- 14.RAISED PAVEMENT MARKERS SHALL BE PLACED ON ALL NEW CENTERLINE AND LANE LINE STRIPING PER CALTRANS STANDARD PLANS.
- 15.CONTRACTOR SHALL REPLACE ALL STRIPING, PAVEMENT MARKERS, AND LEGENDS OBLITERATED BY THIS PROJECT
- 16.CONTRACTOR SHALL REMOVE/TRIM VEGETATION PER ENGINEER.
- 17.ALL CONDUIT PLACED IN STREET SHALL HAVE A MINIMUM OF 24" COVER (R.S.D. G-34).





FOR REDUCED PLANS 10 ORIGINAL SCALE IS IN INCHES

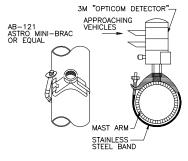
PROFESSIONAL CE	PLANS DESIGNED CHECKED DELINEATED	BY LP DB LP	03/04 03/04 03/04 03/04
Registered engineer FR No. 123456 FR CIVIL OF CALIFORNIA CIVIL OF CALIFORNIA CIVIL C	This Firm This Firm	Address	DATE_



- RELOCATE AND REPLACE POLE (A) WITH NEW POLE (A1). SALVAGE EXISTING POLE: 19A-4-70.
- RELOCATE AND REPLACE POLE (B) WITH NEW POLE (B) . SALVAGE EXISTING POLE: 17A-3-70.
- INSTALL CONDUIT RUNS 1 & 2.
- 4 TYPE E DETECTOR LOOPS.
- 5 INSTALL CONDUIT AS SHOWN.
- INSTALL No. 6 PULLBOXES AS SHOWN.
- INSTALL ADDITIONAL DLC CABLE IN CONDUIT RUN 4.
- PROVIDE AND INSTALL NEW TRAFFIC SIGNAL STREET NAME SIGNS PER COUNTY OF SAN DIEGO STREET NAME STANDARD 8 PLAN DATED 12/20/98, SHEETS 1 AND 2 OF 2, AS WELL AS DETAIL 2.
- INSTALL EMERGENCY VEHICLE PRE-EMPTION EQUIPMENT. MOUNTING HARDWARE AND CABLE SHALL BE FURNISHED BY CONTRACTOR. SEE DETAIL A ON THIS SHEET.
- 10 REPLACE ALL CONDUCTORS ON "CONDUCTOR SCHEDULE".

					POLE	AND EC	UIPMEN	NT SCH	EDULE
		STAN	IDARD		SIGN	NAL MOUNTING	G AND PLACE	EMENT	
	LOC.	TYPE	MAST	TARM	VEH	ICLE	PEDES	STRIAN	REMARKS
			SIG.	LUM.	POLE	MASTARM	SIGNAL	PPB	
(N)	(A1)	19-4-80	30'	12'	(N)SV-2-TB		(N) SP-2-T	(N)ø2W ø3S	REPLACE AND RELOCATE EXISTING POLE
(14)	(6)	(N)	(N)	(N)		(N)MAS Ø5●	ø2P ø3P	(11) \$211 \$33	KENWOOD DR" 8 (N) 250 WHPS
(N)	(B1)	19-3-80	30'	12'	(N)SV-2-TB	(N) MAS Ø4	(N) SP-2-T	(N)ø2W ø4N	REPLACE AND RELOCATE EXISTING POLE
(,	9)	(N)	(N)	(N)	ø1● ø4	*	`ø2P ø4P	(N)02W 04N	"BANCROFT DR" 8 (N) 250 WHPS
(E)	(0)	19A-4-70	25'	12'	SV-2-TB	MAS Ø1	SP-2-T	ø4N ø6E	EXISTING POLE TO REMAIN
(-)	0	194-4-70	23	12	ø3 ø6	MAS Ø6	ø4P ø6P	P III POL	"KENWOOD DR" (N) 250 WHPS
(E)	(D)	17A-3-70	20'	12'	SV-2-TB	MAS Ø3	SP-2-T	ø3N ø6E	EXISTING POLE TO REMAIN
(-)	0	174 5 76		'-	ø3 ø5		ø3P ø6P		"BANCROFT DR" (N) 250 WHPS
(E)	E	MODEL 170	CONTR	ROLLER	ASSEMBLY				
									1

- = RED, YELLOW, AND GREEN ARROWS ★ = RED, YELLOW, GREEN, AND GREEN ARROWS
- (N) = NEW (E) = EXISTING TO REMAIN



200'/ FROM LIMIT LINE

DETAIL A OPTICAL DETECTOR ASSEMBLY EVPE TO BE MOUNTED 7' FROM END OF MAST ARM



10' 6'

LOOP PLACEMENT DETAIL

DETAIL B 3 SECTION VEHICULAR SIGNAL HEAD POLE B

D	DETECTOR ASSIGNMENT SCHEDULE									
No.	PHASE	SLOT	FIELD TERMINAL							
1	2	I2U	TB2-5 & 6							
2	5	J1U	TB3-1 & 2							
3	2	I2L	TB2-7 & 8							
4	4	16U	TB4-9 & 10							
5	4	I6L	TB4-11 & 12							
6	6	J2U	TB3-5 & 6							
7	1	I1U	TB2-1 & 2							
8	6	J2L	TB3-7 & 8							
9	3	15U	TB4-5 & 6							
10	3	I5L	TB4-7 & 8							
11	3	19U	TB6-9 & 10							
12	3	I9L	TB6-11& 12							
PPB-ø2P	ø2P	2l12U	TB8-4 & COM 12							
PPB-ø3P	ø3P	3113L	TB8-5 & COM 13							
PPB-ø4P	Ø4P	4l12L	TB8-8 & COM 12							
PPB-Ø6P	ø6P	6I13U	TB8-7 & COM 13							
*REPLACE	ALL LOO	PS.								

CONDUCTOR SCHEDULE								
AWG OR CABLE	PHASE	POLE OR CIRCUIT	*	*	<u>3</u>	4		
3		POLE A	1	1		1		
5		POLE B		11		1-1		
SIGNAL		POLE C				1/1		
CABLE		POLE D			1	1-1		
TOTAL CABLES 1 2 1 4 4 (3 COND/5 COND/12 COND) 1 2 1 4 4								
#10 -	LU	JMINAIRE	2	2	2	2		
#10 -	Fl	ASHING BEACON						
#6 -	SI	ERVICE						
	ø1			_	1	1		
	ø2 ø3		4	2		2		-
	Ø4		-	-		2		
DLC	ø5			1		1		
TYPE "B"	ø6			<u> </u>	2	2		
TOTAL DLC 3 6 3 11								
EVPE - DLC 1 2 1 4								
CONDUIT	SIZE		4"	4"	2"	3½"		Ħ
		ND REPLACE COND	IIIT	10				
* KELOGATE AND KEI BACE CONDOTT. [19								

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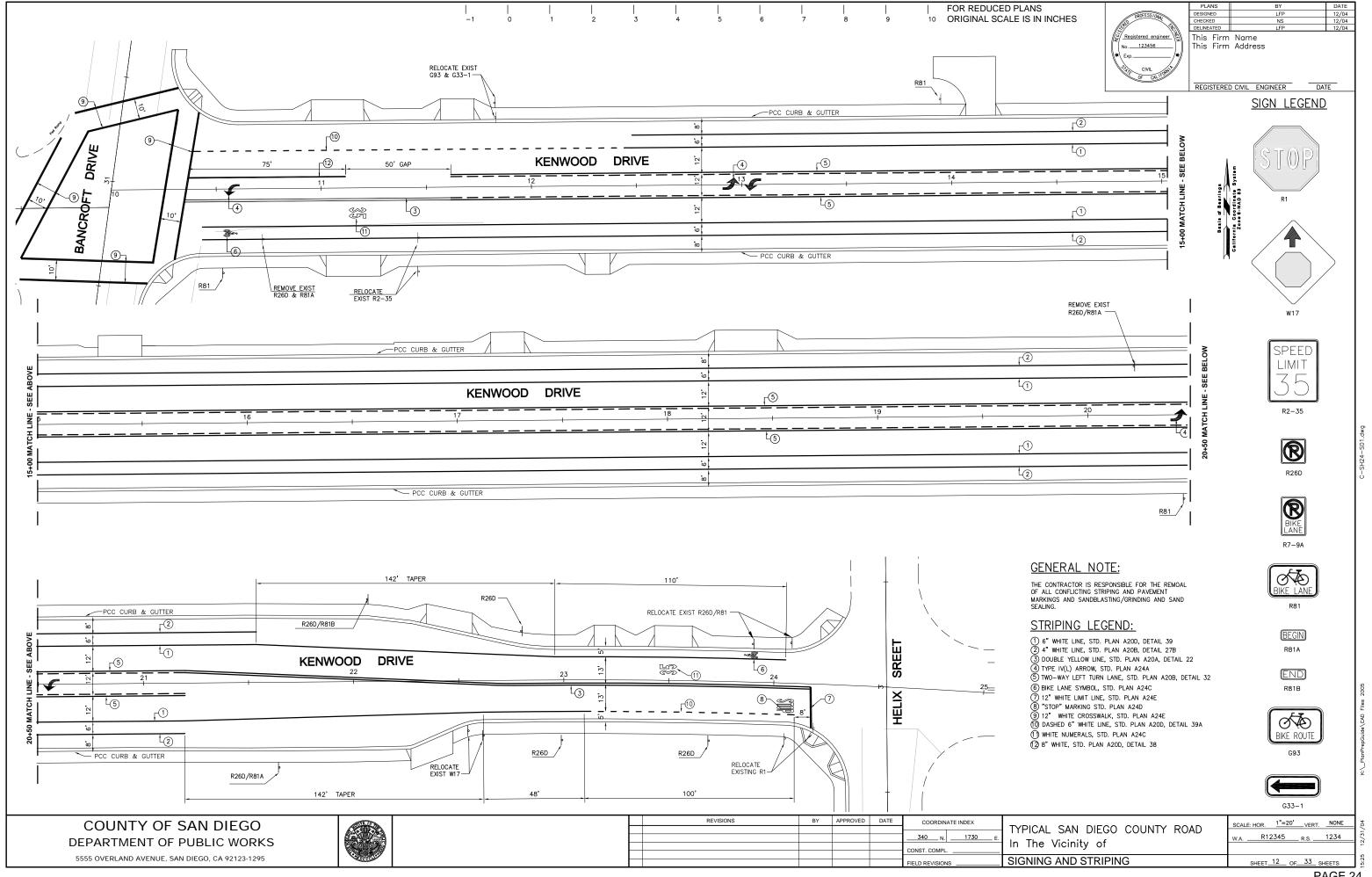
REVISIONS	BY	APPROVED	DATE	COORDINATE INDEX		
				340N.	1730	
				CONST. COMPL.		

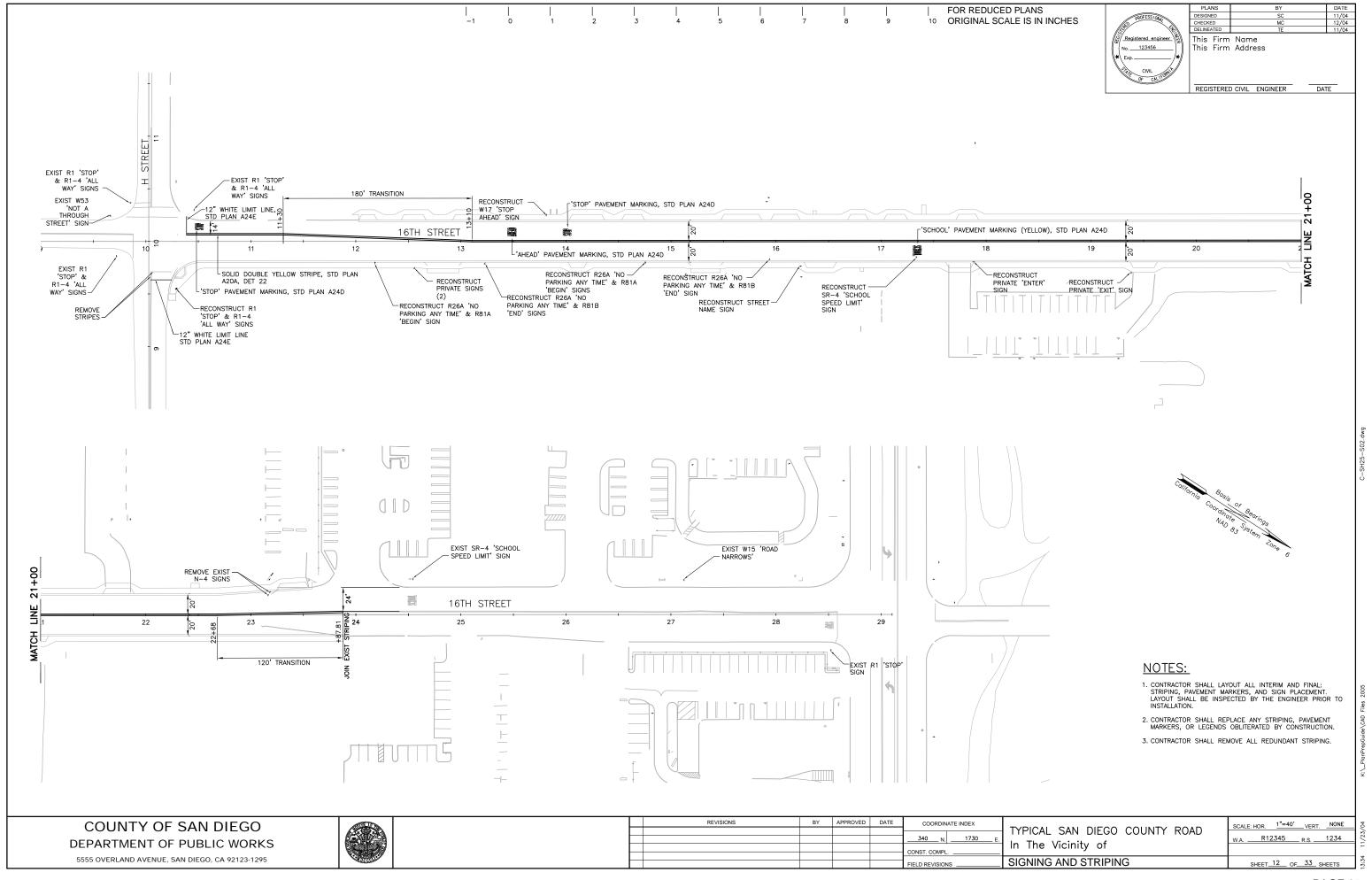
TURNS

ONLY)

(FRONT LOOP

TYPICAL CAN DIECO COUNTY DOAD	SCALE: HOR. 1"=20' VERT. NONE
TYPICAL SAN DIEGO COUNTY ROAD	w.a. R12345 R.S. 1234
In The Vicinity of	
TRAFFIC SIGNAL PLAN (TR-147)	SHEET 23 OF 33 SHEETS





J) TRAFFIC CONTROL PLAN

INSTRUCTIONS

These plans show the sequence of operation, work to be performed, and the traveled way to be used for all movements of traffic during each construction sequence.

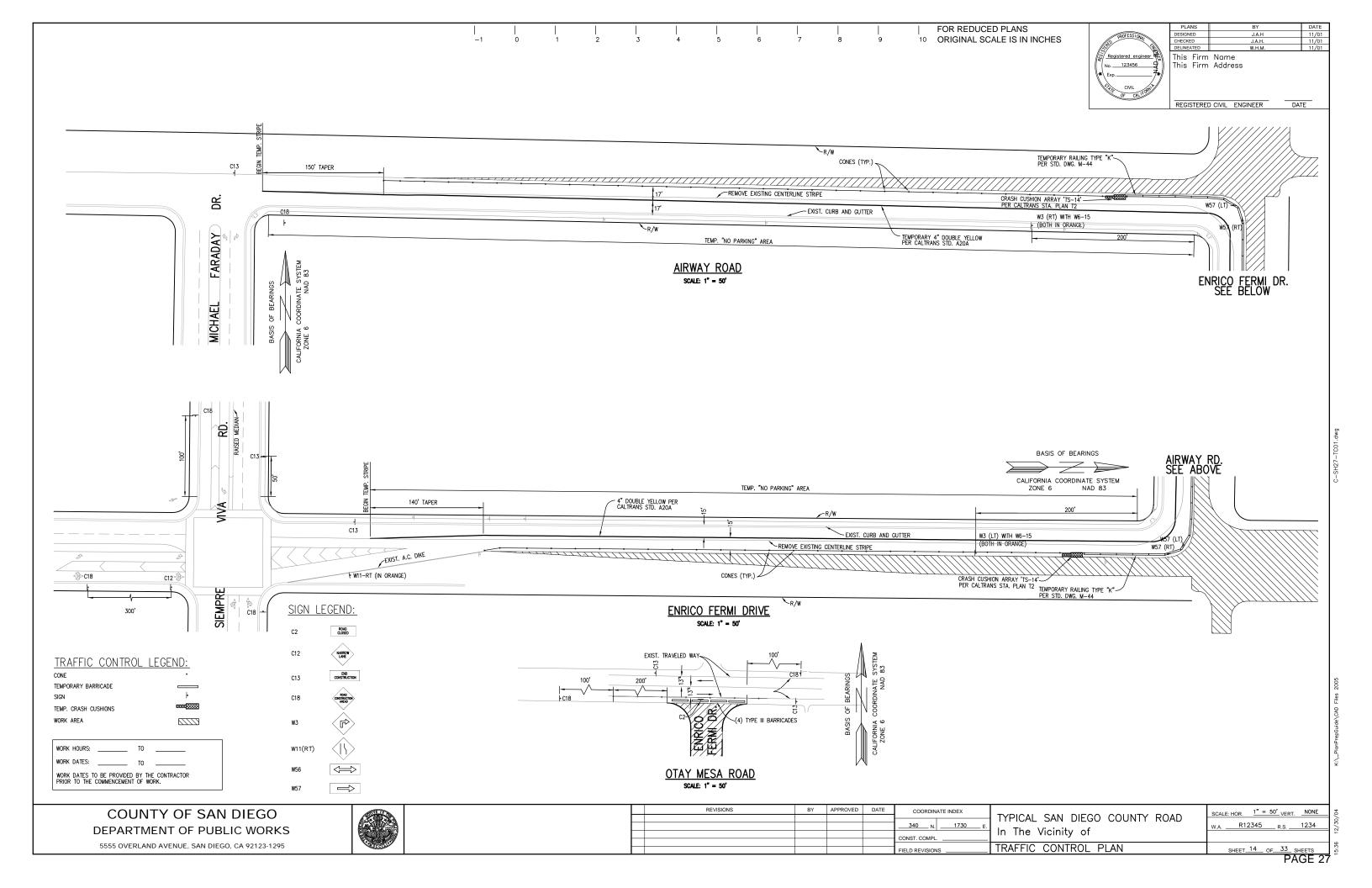
Stage Construction, Traffic Control, and/or Detour Plans shall be included in the project plans when detours or staging of the work is needed. Where sufficient information to construct detours cannot be shown on the Stage Construction and Traffic Control Plans, separate Detour Plans shall be prepared. Stage Construction and Traffic Control Plans may be prepared by utilizing duplicate skeletons of the base plan sheets.

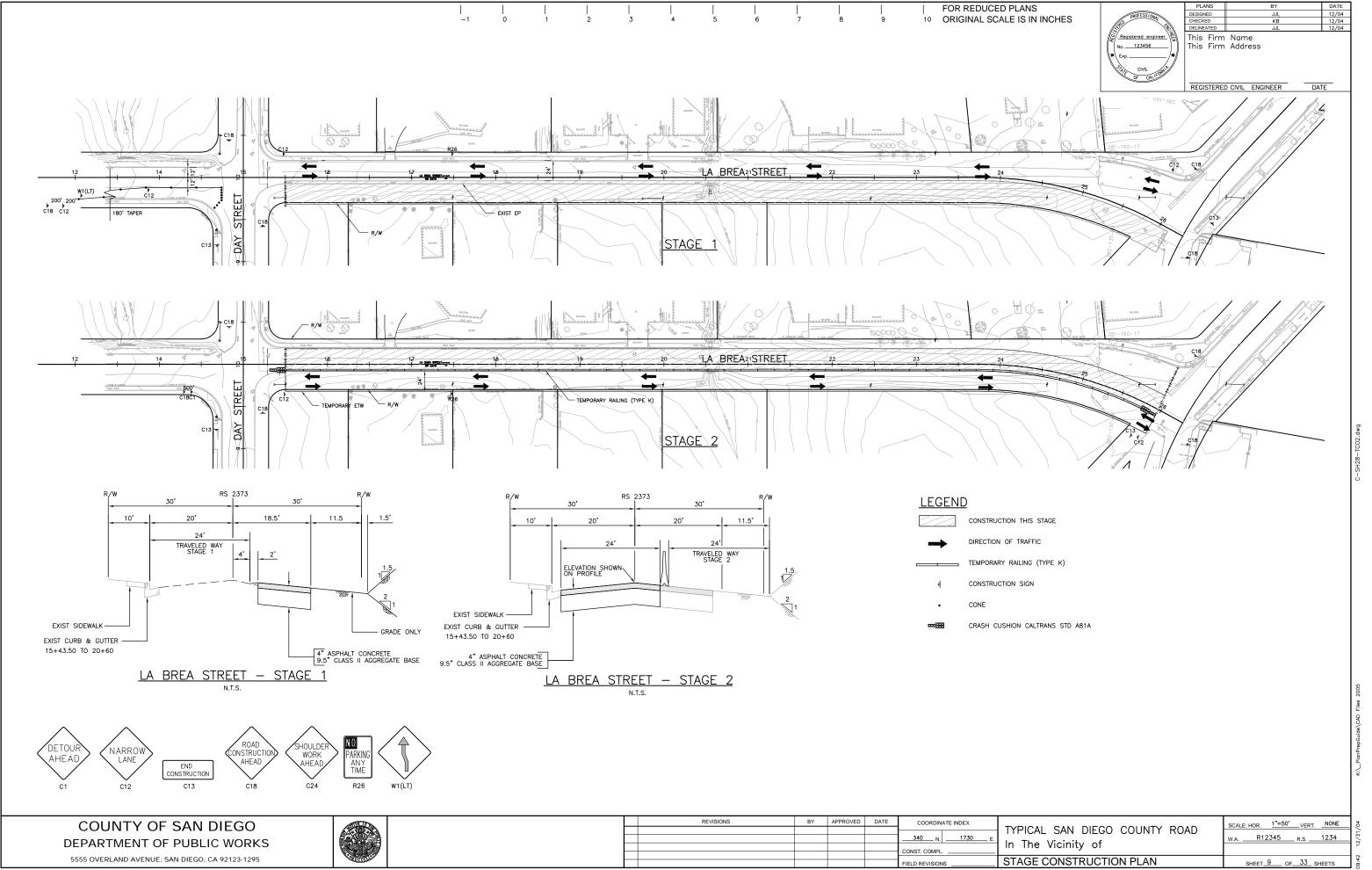
Each stage shown on the Stage Construction Plan shall show:

- Existing roadbeds and roadbeds completed on previous stage
- Construction to be performed in the stage shown
- Traffic direction and number of lanes available in the stage shown

Existing road or detours that have been replaced by permanent construction in previous stages shall not be shown on subsequent stages.

PLAN	CHECKLIST
_	Scales (or labeled no scale)
]	Standard North Arrow
]	Underground Utilities (sewer, water, gas, and telephone)
]	Utility Poles
]	Detour Centerline (stations, equations)
]	Bearings
]	Right of Way Widths
]	Detour Width
]	Driveways (station, width, surfacing)
]	Drainage Pipes
]	Detour Signing
]	Typical Section
	W = 0.11=0.1/1.10=
ROF	ILE CHECKLIST
]	Grid
]	Grades
]	Original Ground
]	Drainage Pipes
3	Utility Crossings





K) WATER POLLUTION CONTROL PLAN

INSTRUCTIONS

Every effort must be maintained to control runoff during the construction phase of the project. Include a plan view describing an erosion and sediment control plan. The design must demonstrate that runoff will be controlled during construction and after completion.

CHECKLIST

_	Temporary BMP
]	Scale (or labeled no scale)
]	Standard North Arrow
]	Existing Topography screened at 10 percent
]	Proposed Topography showing one foot Contour Lines and Elevation Values at every five
	(5) foot increments
]	Top of Slope/Toe of Slope
]	Fill Slope/Cut Slope
]	Daylight Limits of Grading
]	Roadway Widths
]	Right-of-Way Widths
]	Driveways
]	Existing Drainage Facilities with Flow Direction
]	Proposed Drainage Facilities with Flow Direction
]	Environmental Sensitive Area
]	Storm Water Discharge Location
]	Existing Graded Swale
]	Proposed Graded Swale
]	Legend of BMP
]	Description of BMP
]	Details
]	Cross Section of Details

DRIVE STAKES TIGHTLY TOGETHER TO PREVENT

FLOW-THRU

STAKE B-

JOINING SECTION DETAIL (TOP VIEW)

DATE

- FABRIC SECTION B

STAPLES MIN)

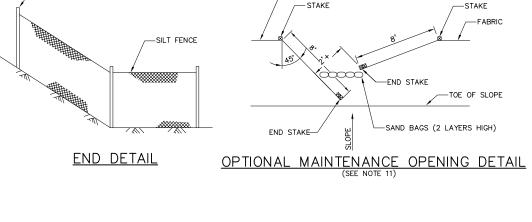
(FOLD AROUND STAKES 1 FULL TURN AND SECURE WITH 4

NOTES

- CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED 1/3 THE HEIGHT OF THE LINEAR BARRIER, IN NO CASE SHALL THE REACH LENGTH EXCEED 500 FEET.
- 2. THE LAST 8 FEET OF FENCE SHALL BE TURNED UP SLOPE.
- 3. STAKE DIMENSIONS ARE NOMINAL.

-WOOD STAKE

- 4. DIMENSIONS MAY VARY TO FIT FIELD CONDITION.
- STAKES SHALL BE SPACED AT 8 FOOT MAXIMUM, AND SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE.
- STAKES TO OVERLAP AND FENCE FABRIC TO FOLD AROUND EACH STAKE ONE FULL TURN. SECURE TO STAKE WITH 4 STAPLES.
- 7. STAKES SHALL BE DRIVEN TIGHTLY TOGETHER TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT. THE TOPS OF THE STAKES SHALL BE SECURED WITH WIRE.
- 8. FOR END STAKES, FENCE FABRIC SHALL BE FOLDED AROUND TWO STAKES ONE FULL TURN AND SECURED WITH 4 STAPLES.
- 9. MINIMUM 4 STAPLES PER STAKE. DIMENSIONS SHOWN ARE TYPICAL.
- 10. CROSS BARRIERS SHALL BE A MINIMUM OF 1/3, AND A MAXIMUM OF 1/2 THE HEIGHT OF THE LINER BARRIER.
- 11. MAINTENANCE OPENINGS SHALL BE CONSTRUCTED IN A MANNER TO ENSURE SEDIMENT REMAINS BEHIND SILT FENCE.
- 12. JOINING SECTIONS SHALL NOT BE PLACED AT SUMP LOCATIONS.
- 13. SANDBAG ROWS AND LAYERS SHALL BE OFFSET TO ELIMINATE GAPS.



MAX REACH = 500' (SEE NOTE 1)

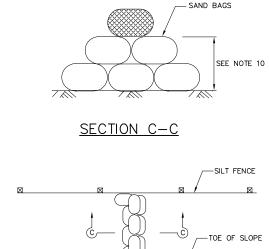
CROSS BARRIER

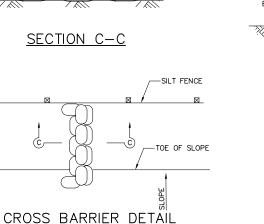
-FABRIC

OPTIONAL MAINTENANCE OPENING DETAIL

<u>PLAN</u>

TEMPORARY LINEAR SEDIMENT BARRIER (TYPE SILT FENCE)





SLOPE-

SETBACK VARIES (SEE PLANS)

-2"X2" WOOD STAKE AT 8' MAX SPACING

SEE DETAIL

- 2"x2" WOOD STAKE FABRIC (FOLD AROUND STAKES 1 FULL TURN AND SECURE WITH 4 STAPLES MIN) SECTION A-A END STAKE DETAIL (TOP VIEW) USE 4 STAPLES MIN PER STAKE STAPLE DETAIL DETAIL A

FABRIC SECTION A (FOLD AROUND STAKES 1 FULL TURN AND

STAPLES MIN)

TEMPORARY SILT FENCE

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TOE OF SLOPE

END STAKE. SEE NOTE 2

CROSS BARRIER-



	REVISIONS	BY	APPROVED	DATE	COORDINATE INDEX		
							TYPICA
					340 N.	1730 E.	In The
					CONST. COMPL		1 In The
					FIFI D REVISIONS		1A/A TEE
							I WATER

TYPICAL CAN DIFCO COUNTY DOAD	SCALE: HOR. NONE VERT.	NONE
TYPICAL SAN DIEGO COUNTY ROAD	w.a. R12345 R.S.	1234
In The Vicinity of		
WATER POLLUTION CONTROL DETAILS	SHEET 15 OF 33 SH	EETS

